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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,116	07/08/2003	Steven K. Stringer	CVN-011 CON	5023
35023	7590	03/24/2005		
LUCE, FORWARD, HAMILTON & SCRIPPS LLP 11988 EL CAMINO REAL, SUITE 200 SAN DIEGO, CA 92130			EXAMINER BIANCO, PATRICIA	
			ART UNIT	PAPER NUMBER
			3762	

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 10/616,116	Applicant(s) STRINGER ET AL.	
	Examiner Patricia M Bianco	Art Unit 3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11,12 and 14-18 is/are rejected.
- 7) ☒ Claim(s) 2,10,13 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/4/03</u> . | 6) <input checked="" type="checkbox"/> Other: <u>Detailed Action</u> . |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Species A/B in the reply filed on 1/03/05 is acknowledged. Claims 1-21 read on the elected species.

Response to Amendment

Applicant cancelled non-elected claims 22-34 and amended claims 1-3 & 5-21 in the amendment submitted with the election. As a result, claims 1-21 are currently pending.

Specification

Applicant has indicated co-pending applications in the first paragraph of the specification. The first page of the specification should be updated to clarify the status of all related applications noted in the first paragraph of the specification. The status of nonprovisional parent application(s) (whether patented or abandoned) should also be included. If a parent application has become a patent, the expression "now Patent No. _____" should follow the filing date of the parent application. If a parent application has become abandoned, the expression "now abandoned" should follow the filing date of the parent application.

Claim Objections

Claim 15 is objected to because of the following informalities: in claim 15 the language "*further comprises at least a second pole-mounted support*" indicates that a *first pole-mounted support* has been claimed. Claim 15 is dependent from claim 12, and neither claim 15 nor 12 recites a *first pole-mounted support* and therefore the claim is confusing. However, claim 14, also dependent from claim 12, does positively claim a *first pole-mounted support*. Is claim 15 is to be dependent on claim 14, rather than claim 12 (see similar claims, applicant's claims 7 & 8)? Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "**the housing**" in line 8. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "**a capacitive sensor**" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

Claim 20 recites the limitation "**a capacitive sensor**" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims **1, 4-9, 11, 12, & 14-18** are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 3/2/1 or claims 19/12 or claims 22/21/20 or claims 29/20 of U.S. Patent No. 6,730,267 in view of Afzal et al. (6,503,450) and Dalke et al. (6,071,258). The patent '267 claims are analogous to the application claims except that the patent claims did not specifically claim that the invention has a venous line, an arterial line, a gas removal port as part of the gas removal system, that the sensor is on the gas collection plenum to monitor the gas level within the plenum, that the controller is a microprocessor-based controller coupled to the sensor to monitor the level of gas and selectively remove gas, and that the controller includes a control panel to accept input, and that the system comprise pole-mounting support arms for supporting the system and control panel. However, the patent claims recite that the apparatus has a blood inlet and a blood outlet, which are equivalent to the venous line and arterial line and this claim limitation and this function are met in the

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patent; that the sensor is disposed on the housing and adapted to detect the presence of gas within the gas collection plenum, and since the gas collection plenum is within the housing, this claim limitation and this function are met in the patent.

While the patent claims do not explicitly teach of including a gas removal port as part of the system, claim 22 discloses a vent port in communication with the gas communication plenum. Also, it would be obvious that a gas removal port would be standard structure to maintain pressure within the housing of the apparatus and thereby ensure proper functioning. Afzal et al. ('450) teaches of an analogous integrated oxygenating and pump apparatus that is analogous to the patent claims and includes a carbon dioxide exit port (i.e. gas removal port) as part of the gas removal system (col. 6, lines 39-60). Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to modify the vent port of the patent claims to be a gas removal port to remove carbon dioxide from the housing to maintain pressure within the housing of the apparatus and thereby ensure proper functioning of the device.

While the patent claims do not explicitly teach of including of a microprocessor-based controller including a control panel for inputting information as part of the system, it does teach that the controller controls the operation of the apparatus in response to the output of a sensor and acts upon the valve to control the evacuation of gas from the collection plenum. Further, the patent claims do not teach of pole-mounting support arms for supporting the system and control panel. Dalke et al. ('258) discloses a perfusion & oxygenation assembly including a central controller, display, and both the controller and display may have keypads for inputting information. The controller

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processes information from multiple sensors and communicates it to the rest of the apparatus (i.e. functions as a microcontroller). Dalke et al. further teaches of multiple arms for holding or mounting the parts of the apparatus. Dalke et al. ('450) teaches of an analogous apparatus that is analogous to the patent claims. Therefore, at the time of the invention, it would have been obvious to one having ordinary skill in the art to modify the apparatus of the patent claims to include a central controller, display, and both the controller and display may have keypads for inputting information as well as multiple arms for holding or mounting the parts of the apparatus to allow for central control and central location of the system.

Allowable Subject Matter

Claims 3 & 20 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 2, 10, 13, & 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia M Bianco whose telephone number is (571)

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272-4940. The examiner can normally be reached on Monday to Friday 9:00-6:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on (571) 272-4955. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 18th, 2005

PATRICIA BIANCO
PRIMARY EXAMINER
Patricia M. Bianco

Patricia M Bianco
Primary Examiner
Art Unit 3762